

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte*, SANG-SEO LEE

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Appeal No. 2006-3127  
Application No. 09/503,506  
Technology Center 2100

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Decided: February 15, 2007

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Before KENNETH W. HAIRSTON, LANCE LEONARD BARRY, and  
ALLEN R. MACDONALD, *Administrative Patent Judges*.

MACDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the Examiner's rejection of claims 1-8, and 16-23.

## THE INVENTION

The disclosed invention pertains to a data transmission protocol and an apparatus performing transmission according to the data transmission protocol, and more particularly, to a data transmission protocol and apparatus using a short message service (Specification 2). Recently, large-sized screens of liquid crystal display units have been developed, but the conventional short message transmission protocol cannot efficiently utilize these devices (Specification 3). The disclosed invention addresses this problem by providing a data sending protocol for segmenting message data into a plurality of short messages when sending the message data, so as to allow message data, which is longer than a conventional transmittable message data, to be transmitted while still using a conventional short message service (*id.*).

Representative claim 1 is illustrative:

1. A data sending protocol using a short message service, the data transmission protocol comprising the steps of:
  - (a) inserting a data connection service identifier into a user data field;
  - (b) segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number, into the user data field;

- (c) generating a short message field using the user data field; and
- (d) transmitting the short message field.

### THE REFERENCES

The Examiner relies upon the following references as evidence of unpatentability:

Ayabe	US 6,141,550	Oct. 31, 2000 (division filed Dec. 14, 1995)
Liao	US 6,185,208	Feb. 6, 2001 (effective Apr. 30, 1998)
Isomursu	US 6,400,958	Jun. 4, 2002 (effective Feb. 20, 1997)

### THE REJECTIONS

The following rejections are on appeal before us:

1. Claims 1-7 and 16-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Isomursu in view of Liao.
2. Claims 8 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Isomursu in view of Liao, and further in view of Ayabe.

Rather than repeat the arguments of Appellant or the Examiner, we make reference to the Briefs and the Answer for the respective details thereof.

## OPINION

Only those arguments actually made by Appellant have been considered in this decision. It is our view, after consideration of the record before us, that the evidence relied upon supports the Examiner's rejection of the claims on appeal. Accordingly, we affirm.

## GROUPING OF CLAIMS

We consider the obviousness of the following logical groups of claims, as defined under separate subheadings and argued separately by Appellant in the Briefs.

GROUP A: Claims 1-4, 6, 7, 16-19, 21, and 22.

GROUP B: Claim 5 and 20.

GROUP C: Claims 8 and 23.

At the outset, we note that Appellant has failed to argue the issue of motivation with respect to the combinations of references relied upon by the Examiner. Therefore, we address specific claim limitations *infra* with respect to each group of claims separately argued in the Briefs.

### GROUP A, claims 1-4, 6, 7, 16-19, 21, and 22

We consider first the Examiner's rejection of claims 1-4, 6, 7, 16-19, 21, and 22 as being unpatentable over the teachings of Isomursu in view of Liao. Since Appellant's arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select independent claim 1 as the representative claim for this rejection because it

is the broadest independent claim in this group. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellant argues that the cited combination of Isomursu and Liao does not teach nor suggest: “segmenting input message data into a plurality of short message data fields and inserting a segmented message data field, a field indicating the number of segmented short messages and a field indicating a current short message number, into the user data field,” as claimed. Appellant notes that the cited portion of the Liao reference discloses when the last fragment is received, a flag in the last segment is turned on to indicate the end of the message. However, Appellant argues that *turning on a flag* does not correspond to *inserting a field* (emphasis in original). Appellant also argues that indicating the *end of a message* does not correspond to *indicating the number of segmented short messages* (emphasis in original). Therefore, Appellant concludes that claim 1 is allowable over the prior art (Br. 8-9).

The Examiner disagrees. The Examiner notes that Liao teaches a system for segmenting a message that is too long to be transmitted whole using short messages (col. 6, ll. 3-45). The Examiner points to Liao and notes the last segment of the message is indicated by turning on a flag (col. 6, ll. 57-61). The Examiner argues that turning on a flag is equivalent to inserting a field since the flag value is a field that is inserted into the last message to denote the last message (i.e., indicating the total number of messages). The Examiner concludes that the combination of Isomursu and Liao sufficiently teaches the idea of inserting a field indicating the number of segmented short messages into a user data field, as claimed (Answer 6).

In the Reply Brief, Appellant argues that turning on a flag implies manipulation of a *previously established* value that does not correspond to inserting a field, as claimed (Reply Br. 5, emphasis in original). Appellant further argues that a flag indicating a last message does not necessarily indicate a total number of messages (*id.*).

We begin our analysis by noting that Liao discloses a fragmentation process whereby a message with a size that exceeds a maximum packet size for the wireless data network is fragmented into  $x$  sub-messages, with each sub-message containing fields denoting a reference number ( $R_n$ ) and a series number ( $S_n$ ) (col. 5, ll. 22-47; *see also* Fig. 2). After carefully reviewing all of the evidence before us, we find that Liao discloses: “segmenting input message data into a plurality of short message data fields” (i.e., fragmenting a longer message into  $x$  sub-messages, col. 5, ll. 25-30), and “inserting a segmented message data field, a field indicating the number of segmented short messages” (i.e., the  $S_n + X$  field is inserted into the *last* or *nth* sub-message 210, as shown in fig. 2), and “a field indicating a current short message number, into the user data field” (i.e., the  $S_n$  field inserted into each sub-message, Fig. 2), as claimed. Because we find the claim reads on the Liao reference as indicated, we need not reach the issue of a flag that denotes a last message, as argued by Appellant in the Briefs. Therefore, we will sustain the Examiner’s rejection of representative claim 1 as being unpatentable over Isomursu in view Liao.

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), we have decided the appeal with respect to the remaining GROUP A claims 2-4, 6, 7, 16-19, 21, and 22 on the basis of the selected claim alone. Accordingly, we will sustain the

Examiner's rejection of these claims as being unpatentable over Isomursu in view of Liao for the same reasons discussed *supra* with respect to representative claim 1.

GROUP B, claims 5 and 20

We consider next the Examiner's rejection of dependent claims 5 and 20 as being unpatentable over the teachings of Isomursu in view of Liao. Since Appellant's arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will select claim 5 as the representative claim for this rejection. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Appellant argues that Isomursu and Liao do not teach nor suggest "inserting a reference number field, which indicates a number for referring to the type of data connection service, into a position next to the data connection service identifier in the user data field," as claimed (claim 5). Appellant asserts that Isomursu instead discloses inserting an application identifier into the INFO field. Appellant further asserts that the INFO field does not correspond to the user data field recited in the claim. Instead, Appellant contends that the INFO field is an information field of the short message transmission frame containing the actual short message in characters (*see* Isomursu, col. 6, ll. 34-38) (Br. 9).

The Examiner disagrees. The Examiner asserts that Appellant's Specification never discloses any use of the reference number field. The Examiner concludes that it would have been an obvious design choice for someone to insert a redundant field that is not processed into a message

because having such a field appears to be totally arbitrary and completely lacks any utility when the claims are interpreted in light of Appellant's Specification (Answer 7).

In the Reply Brief, Appellant submits that the features of claim 5 merit patentable weight as the Examiner has not rejected claim 5 for lack of utility. Appellant reiterates that the applied references, either alone or in combination, do not teach nor suggest inserting a reference number field, which indicates a number for referring to a type of data connection service employed, into a position next to the data connection service identifier in the user data field (Reply Br. 6).

We find Appellant's arguments unpersuasive. Liao teaches inserting segmented message data fields, as discussed *supra*. That is, Liao teaches inserting nonfunctional descriptive material in the form of a reference number ( $R_n$ ) and a series number ( $S_n$ ) (col. 5, ll. 22-47; *see also* Fig. 2). Neither Isomursu nor Liao teach nonfunctional descriptive material in the form of "a number for referring to the type of data connection service," as claimed (claim 5). However, nonfunctional descriptive material cannot render nonobvious an invention that would have otherwise been obvious. *In re Ngai*, 367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004). *Cf. In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability). Thus, we find that the difference between the prior art and the instant claimed invention is simply a rearrangement of nonfunctional descriptive material. Accordingly, we will sustain the



Examiner's rejection of representative claim 5 as being unpatentable over Isomursu in view of Liao.

Pursuant to 37 C.F.R. § 41.37(c)(1)(vii), we have decided the appeal with respect to the remaining GROUP B claim 20 on the basis of the selected claim alone. Therefore, we will sustain the Examiner's rejection of claim 20 as being unpatentable over Isomursu in view of Liao for the same reasons discussed *supra* with respect to representative claim 5.

GROUP C, claims 8 and 23

Lastly, we consider the Examiner's rejection of dependent claims 8 and 23 as being unpatentable over the teachings of Isomursu in view of Liao, and further in view of Ayabe.

Appellant asserts that claims 8 and 23 are allowable over the prior art because of their dependence from claims 1 and 16, respectively, and because Ayabe does not make up for the deficiencies of Isomursu and Liao [Brief, page 11].

We see no deficiencies with respect to Isomursu and Liao, as discussed *supra* with respect to claims 1 and 16. We note that Appellant has not presented any substantive arguments directed separately to the patentability of claims 8 and 23. In the absence of a separate argument with respect to the dependent claims, those claims stand or fall with the representative independent claim. *See In re Young*, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). Therefore, we will sustain the Examiner's rejection of these claims for the same reasons discussed *supra* with respect to independent claims 1 and 16, respectively.

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DECISION

In summary, we have sustained the Examiner's rejection of all claims on appeal. Therefore, the decision of the Examiner rejecting claims 1-8 and 16-23 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED.

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SUGHRUE, MION, ZINN, MACPEAK & SEAS  
2100 PENNSYLVANIA AVENUE, N.W.  
WASHINGTON, DC 20037-3202